

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SOON-TAE KIM

Appeal No. 1998-2497
Application No. 08/472,275

ON BRIEF

Before KRASS, LALL, and GROSS, Administrative Patent Judges.
KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-11 and 15-31. Claims 12-14 have been withdrawn as being directed to a nonelected invention.

The invention is directed to improvements in digital signal recording apparatus for converting successively supplied n-bit information words into a serial stream of bits for recording on a magnetic recording medium.

Representative independent claim 1 is reproduced as follows:

1. Digital signal recording apparatus comprising:

a recorder, for recording parallel tracks of digital signal modulation on a recording medium;

an input port for serially receiving n-bit information words;

circuitry for inserting a "0" bit into each said received n-bit information word and generating a (n+1)-parallel-bit "positive" information word at an information word rate slower by a factor of (n+1) than the rate of a system clock;

circuitry for inserting a "1" bit into each said received n-bit information word and generating a (n+1)-parallel-bit "negative" information word at said information word rate, which (n+1)-parallel-bit "negative" information word is supplied concurrently with said (n+1)-parallel-bit "positive" information word generated from the same one of said n-bit information words;

a first precoder for coding each (n+1)-parallel-bit "positive" information word to convert it into a corresponding "positive"-information (n+1)-parallel-bit channel word, generated at a channel word rate slower by a factor of (n+1) than the rate of said system clock;

a second precoder for coding each (n+1)-parallel-bit "negative" information word to convert it into a corresponding "negative"-information (n+1)-parallel-bit channel word, generated at said channel word rate;

means for selecting one of each concurrent pair of "positive"-information and "negative"-information (n+1)-parallel-bit channel words for serial recording at said system clock rate, said means for selecting one of each concurrent pair of (n+1)-parallel-bit channel words for recording including

first parallel-to-serial conversion means for generating first parallel-to-serial conversion results by converting the selected (n+1)-parallel-bit channel word to serial-bit form, and

a selector switch responsive to a control signal for selecting one of said first parallel-to-serial conversion results for application to said recorder, for serial recording at said system clock rate;

second parallel-to-serial conversion means for generating second parallel-to-serial conversion results by converting at least one of each concurrent pair of (n+1)-parallel-bit channel words to serial-bit form; and

a control signal generator for selecting a prescribed spectral response for the one of the parallel tracks on said magnetic recording medium being currently recorded, for determining from said second parallel-to-serial conversion results how much respective spectral responses for "positive"-information and "negative"-information (n+1)-parallel-bit channel words most recently generated by said first and second precoders will deviate in energy from said prescribed spectral response if recorded in a prescribed non-return-to-zero-invert-on-ONES format, and for comparing the amplitudes of the respective deviation results for the "positive"-information and "negative"-information (n+1)-parallel-bit channel words most recently generated by said first and second precoders, to generate a control signal indicating which one of said

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"positive"-information and "negative"-information (n+1)-bit channel words has a spectral response that least deviates from said prescribed spectral response.

The examiner relies on the following reference:

Kahlman et al. [Kahlman] 5,142,421 Aug. 25, 1992

Additionally, the examiner relies on Official Notice "that the selection of parallel processing or serial processing would have been an obvious design choice." The examiner also relies on the alleged admitted prior art [APA] depicted in instant Figure 4, even though Figure 4 is not labeled as prior art and, in fact, is described at page 5 of the specification as an "improved control signal generator for the digital signal recording apparatus shown in FIGURE 3."

Claims 1-11 and 15-31 stand rejected under 35 U.S.C. 103. As evidence of obviousness, the examiner offers Kahlman in view of Official Notice with regard to claims 1-3, 10, 11, 15-21 and 27, adding APA to this combination with regard to claims 4-9, 22-26 and 28-31.

Reference is made to the brief and answer for the respective positions of appellant and the examiner.

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OPINION

At the outset, we note that appellant requests "rejoinder of claims 12-14..." [principal brief-page 26]. Claims 12-14 are not before us on appeal. The claims were withdrawn by the examiner as being directed to nonelected subject matter. If appellant disagreed with the examiner's decision, a petition to the Commissioner was the proper route of relief. In any event,

disagreement with a restriction requirement is a petitionable, not an appealable, matter.

In a related matter, appellant filed a notice supplemental to the appeal briefs, March 4, 1999, indicating that U. S. Patent No. 5,877,712 was issued to appellant. This patent matured from a continuation-in-part application of the instant application. Thus, to whatever extent claims 12-14 now form the basis of patented claims and to whatever extent any claims in the instant application conflict with patented claims granted to appellant, we leave these matters to be handled by appellant and the examiner.

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Turning to the rejection before us, based on 35 U.S.C. 103, we reverse.

The examiner's statement of rejection with regard to independent claims 1 and 15 cites Kahlman as disclosing all that is claimed but, unlike claims 1 and 15, Kahlman provides a "P/S converter 2 prior to all other elements rather than performing parallel to serial conversion after "0" and "1" bit insertion." However, the examiner takes "Official Notice" that the selection of parallel processing or serial processing would have been an obvious design choice and so it would have been obvious to have applied parallel processing to Kahlman....

As pointed out by appellant, the examiner has applied "Official Notice" at the point of novelty of the invention. Clearly this is improper. But even if the examiner had a reasonable basis for invoking "Official Notice," appellant has challenged this assertion and placed the burden on the examiner to establish, by evidence, that the allegation regarding what was known, is true. The examiner has failed to present any evidence, preferring, instead, to merely allege,

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at page 6 of the answer, that the examiner "may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being well known in the art." While we agree with this statement, the fact is that the examiner has been challenged and has not shown what should be "capable of instant and unquestionable demonstration." If the alleged fact or facts is/are so unquestionably demonstrable, the examiner should provide evidence of the truth of his allegation.

Moreover, while claims 1 and 15 are very lengthy, including many elements, the examiner has not specifically pointed out what elements correspond to those shown by Kahlman and of what elements the examiner takes Official Notice. For example, the claims call for a "first" and "second" precoder for coding certain types of information and specifically converting the information into corresponding channel words wherein the many elements of the claims are interconnected in a specifically recited relationship with these precoders. It is not clear what elements in Kahlman and/or Official Notice the examiner relies on for the teaching of these claimed elements and their interrelationships. In fact, the examiner

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never cites any specific claim language in explaining how Kahlman is being applied together with "Official Notice."

Clearly, the examiner has utterly failed to present a prima facie case of obviousness of the instant claimed subject matter and we will not sustain the rejection of claims 1-11 and 15-31 under 35 U.S.C. 103.

The examiner's decision is reversed.

REVERSED

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